

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 September 2002 (12.09.2002)

PCT

(10) International Publication Number
WO 02/070755 A2

(51) International Patent Classification⁷: C21N 9/00

(74) Agent: CASIMIR, David, A.; Medlen & Carroll, LLP,
101 Howard Street, Suite 350, San Francisco, CA 94105
(US).

(21) International Application Number: PCT/US01/44953

(22) International Filing Date:
15 November 2001 (15.11.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/713,601 15 November 2000 (15.11.2000) US
09/714,935 17 November 2000 (17.11.2000) US

(71) Applicant (*for all designated States except US*): **THIRD
WAVE TECHNOLOGIES, INC.** [US/US]; 502 South
Rosa Road, Madison, WI 53719-1256 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LYAMICHEV,
Victor, I.** [RU/US]; 2523 Carriedale Court, Madison,
WI 53711 (US). **KAISER, Michael, W.** [US/US]; 2206
Frisch Road, Madison, WI 53711 (US). **LYAMICHEVA,
Natasha** [RU/US]; 2523 Carriedale Court, Madison, WI
53711 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

Published:

— *without international search report and to be republished
upon receipt of that report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: FEN ENDONUCLEASES

(57) Abstract: The present invention provides novel cleavage agents and polymerases for the cleavage and modification of nucleic acid. The cleavage agents and polymerases find use, for example, for the detection and characterization of nucleic acid sequences and variations in nucleic acid sequences. In some embodiments, the 5' nuclease activity of a variety of enzymes is used to cleave a target-dependent cleavage structure, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof.



WO 02/070755 A2